

**CLAIMS**

We claim:

- 5        1. An anti-idiotype antibody directed against Anti-Lewis Y monoclonal antibody.
2. The anti-idiotype antibody of claim 1, which binds to the variable region of an anti-Lewis Y monoclonal antibody.
- 10      3. The anti-idiotype antibody of claim 1, which blocks the binding of an anti-Lewis Y monoclonal antibody.
4. The anti-idiotype antibody of claim 1 which specifically binds hu3S193.
- 15      5. The anti-idiotype antibody of claim 1 which is selected from the group consisting of a monoclonal antibody, a chimeric antibody, a human antibody, a humanized antibody, or a single chain antibody.
- 20      6. The anti-idiotype antibody of claim 2 which is selected from the group consisting of a monoclonal antibody, a chimeric antibody, a human antibody, a humanized antibody, or a single chain antibody.
- 25      7. The anti-idiotype antibody of claim 3 which is selected from the group consisting of a monoclonal antibody, a chimeric antibody, a human antibody, a humanized antibody, or a single chain antibody.
- 30      8. The anti-idiotype antibody of claim 4 which is selected from the group consisting of a monoclonal antibody, a chimeric antibody, a human antibody, a humanized antibody, or a single chain antibody.
9. A hybridoma capable of producing the anti-idiotype antibody of claim 1.

10. A hybridoma capable of producing the anti-idiotype antibody of claim 2.
11. A hybridoma capable of producing the anti-idiotype antibody of claim 3.
- 5 12. A hybridoma capable of producing the anti-idiotype antibody of claim 4.
13. The hybridoma of claim 12, which is, selected from the group consisting of LMH-1, LMH-2, and LMH-3.
- 10 14. The anti-idiotype antibody of claim 4, which is produced by a hybridoma, selected from the group consisting of LMH-1, LMH-2, and LMH-3.
- 15 15. A method of detecting binding specificity of anti-idiotype antibodies comprising:
  - a. coating an Elisa plate with anti-Lewis Y antibody, purified human IgG or other control Mab;
  - b. adding purified anti-idiotype antibody;
  - c. incubating with secondary antibody; and
  - 20 d. detecting the amount of bound anti-idiotype antibody, wherein binding of an anti-idiotype antibody to the antibody evidences binding specificity.
16. The method of claim 15 wherein the mAB is hu3S193.
- 25 17. The method of claim 15 wherein the anti-idiotype antibody is directed against anti-Lewis Y antigen.
18. A method of detecting anti-idiotype anti-Lewis Y antibodies capable of blocking the binding of anti-Lewis Y monoclonal antibody comprising:
  - 30 a. coating an Elisa plate with Lewis Y-BSA coupled antigen;
  - b. adding anti-idiotype antibody;

- c. adding monoclonal anti-Lewis Y idiotype antibody; and
- d. detecting bound anti-Lewis Y monoclonal antibody, wherein the amount of anti-Lewis Y antibody bound to the antigen in the presence and absence of anti-idiotype antibody is evidence of the ability of the anti-idiotype antibody to block the binding of anti-Lewis monoclonal antibody.

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- 19. The method of claim 18 wherein the anti- anti-Lewis Y monoclonal antibody is hu3S193.
- 10 20. The method of claim 18 wherein the anti-idiotype antibody is directed against anti-Lewis Y antibody
- 15 21. A method of detecting anti-Lewis Y antibody in a serum sample comprising:
  - a. coating ELISA plate with synthetic Lewis Y-BSA antigen;
  - b. adding serum samples to the ELISA plates;
  - c. adding peroxidase conjugated anti-Lewis Y anti-idiotype antibody to the ELISA plates; and
  - d. determining the presence of anti-Lewis Y antibody from the amount of peroxidase conjugated anti-Lewis Y anti-idiotype antibody bound to antigen-coated ELISA plate.
- 20 22. The method of claim 21 wherein the monoclonal idiotype antibody is hu3S193
- 25 23. A method of detecting an anti-Lewis Y HAHA response in a subject who has been administered a humanized anti-Lewis Y monoclonal antibody comprising:
  - a. collecting serum sample from the subject;
  - b. reacting the serum sample to a Lewis Y antigen coated ELISA plate in the presence or absence of a peroxidase conjugated anti-Lewis Y antibody;
  - 30 and

- c. determining there from the presence or absence of anti-idiotype anti-Lewis antibody, wherein presence of anti-idiotype anti-Lewis antibody evidences a HAHA response.